

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

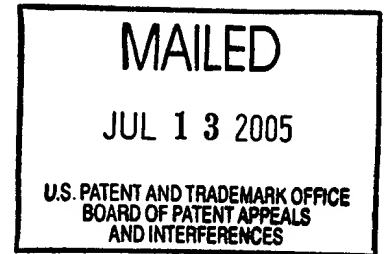
UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

Ex parte GERARD JAY BELLASALMA,  
JOON TAEK KIM and LLOYD RAMSEY

Appeal No. 2005-1279  
Application No. 09/924,285

ON BRIEF



Before FRANKFORT, MCQUADE, and NASE, Administrative Patent Judges.  
MCQUADE, Administrative Patent Judge.

DECISION ON APPEAL

Gerard Jay Bellasalma et al. appeal from the final rejection (mailed July 30, 2003) of claims 1 through 32, all of the claims pending in the application.

THE INVENTION

The invention relates to "a low-pressure mold assembly, and more particularly to a valve assembly for a mold which minimizes the frequency of flushing" (specification, page 1).

Representative claim 1 reads as follows:

Claim 1. A valve assembly for a low pressure mold assembly comprising:

- a port to a mold assembly;
- a coupler for receipt of a mix head along a mix head axis;
- a fluid flow passage from said coupler to said port; and

a piston which is substantially rectilinear in cross-section, said piston movable within said fluid flow passage along a first axis between a first position which allows flow from said coupler to said port, and a second position which seals said port.

THE PRIOR ART

The references relied on by the examiner to support the final rejection are:

Schneider	4,239,732	Dec. 16, 1980
Gumery et al. (Gumery)	5,435,710	Jul. 25, 1995
Nennecker	5,498,151	Mar. 12, 1996

THE REJECTIONS

Claims 1, 3 through 9, 12 and 14 through 20 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Nennecker.

Claims 2 and 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Nennecker.

Claims 1, 3 through 10, 12 and 14 through 21 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Gumery.

Claims 2, 13, 27 and 29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Gumery.

Claims 11, 22, 28 and 30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Nennecker in view of Schneider.

Claims 11, 22 through 26, 31 and 32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Gumery in view of Schneider.

Attention is directed to the main and reply briefs (filed December 31, 2003 and May 24, 2004) and answer (mailed March 19, 2004) for the respective positions of the appellants and examiner regarding the merits of these rejections.

#### DISCUSSION

As indicated above, independent claim 1 recites a valve assembly comprising, inter alia, "a piston which is substantially rectilinear in cross-section."<sup>1</sup> Independent claims 12 and 22 contain substantively identical limitations. According to the underlying specification (see pages 1 and 4), the straight walls of such a piston are effective to wipe remnants of a settable molding matrix from an upstream fluid flow passage into a mold cavity.

Each of the appealed rejections rests on a finding by the examiner that Nennecker or Gumery discloses a piston which is

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<sup>1</sup>Webster's New Collegiate Dictionary (G. & C. Merriam Co. 1977) defines "rectilinear" in the sense most pertinent to the appellants' usage as meaning "characterized by straight lines."

substantially rectilinear in cross-section. In this regard, the examiner points to the piston 18/piston rod 21 in Nennecker's molding machine mixing head and the piston 38 in Gumery's injection molding device (see pages 3 and 4 in the answer). Although these prior art piston elements are cylindrical in shape, the examiner submits that each has a rectilinear cross-section in a plane containing the longitudinal axis of the element. The appellants counter that the examiner's position is inconsistent with their specification and repugnant to the ordinary meaning of the term "cross-section," i.e., "[a] section formed by a plane cutting through an object, **usually at right angles to an axis**" (main brief, page 4).<sup>2</sup>

During patent examination, the USPTO applies to claim verbiage the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in the specification. In re Morris, 127 F.3d 1048, 1054, 44 USPQ2d 1023, 1027 (Fed. Cir.

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<sup>2</sup>The appellants cite dictionary.com as the source for this definition of "cross-section."


1997). Pistons of the sort disclosed by the appellants and by Nennecker and Gumery are elongated elements which move in the direction of their longitudinal axes. Within this context, one of ordinary skill in the art would have understood the recitation in independent claims 1, 12 and 22 of a piston which is substantially rectilinear in cross-section to mean a piston which has a substantially rectilinear cross-section perpendicular to its longitudinal axis. This interpretation is consistent with both the appellants' specification (see, for example, page 4 and Figure 3 in the drawings) and the definition of "cross-section" advanced by the appellants (which has not been challenged by the examiner). The examiner has not cogently explained, and it is not apparent, why the artisan would have viewed cylindrical pistons having circular transverse cross-sections, such as those disclosed by Nennecker and Gumery, to be pistons which are substantially rectilinear in cross-section merely because they happen to embody rectilinear cross-sections parallel to their longitudinal axes. The examiner also has failed to explain, and it is not evident, why either reference would have suggested a piston which is substantially rectilinear in cross-section.

Accordingly, we shall not sustain the standing 35 U.S.C. § 102(b) rejection of independent claims 1 and 12, and dependent claims 3 through 9 and 14 through 20, as being anticipated by Nennecker, the standing 35 U.S.C. § 103(a) rejection of dependent claims 2 and 13 as being unpatentable over Nennecker, the standing 35 U.S.C. § 102(b) rejection of independent claims 1 and 12, and dependent claims 3 through 10 and 14 through 21, as being anticipated by Gumery, or the standing 35 U.S.C. § 103(a) rejection of dependent claims 2, 13, 27 and 29, as being unpatentable over Gumery.


As the examiner's application of Schneider does not cure the foregoing shortcomings of Nennecker and Gumery, we also shall not sustain the standing 35 U.S.C. § 103(a) rejection of independent claim 22, and dependent claims 11, 28 and 30, as being unpatentable over Nennecker in view of Schneider or the standing 35 U.S.C. § 103(a) rejection of independent claim 22, and dependent claims 11, 23 through 26, 31 and 32, as being unpatentable over Gumery in view of Schneider.

The decision of the examiner to reject claims 1 through 32 is reversed.

Charles E. Frankfort

  
JOHN P. MCQUADE

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AND  
INTERFERENCES

  
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Appeal No. 2005-1279  
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Page 8

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